

# How to train AI models with users' emotional feedback while keeping them engaged with the platform?

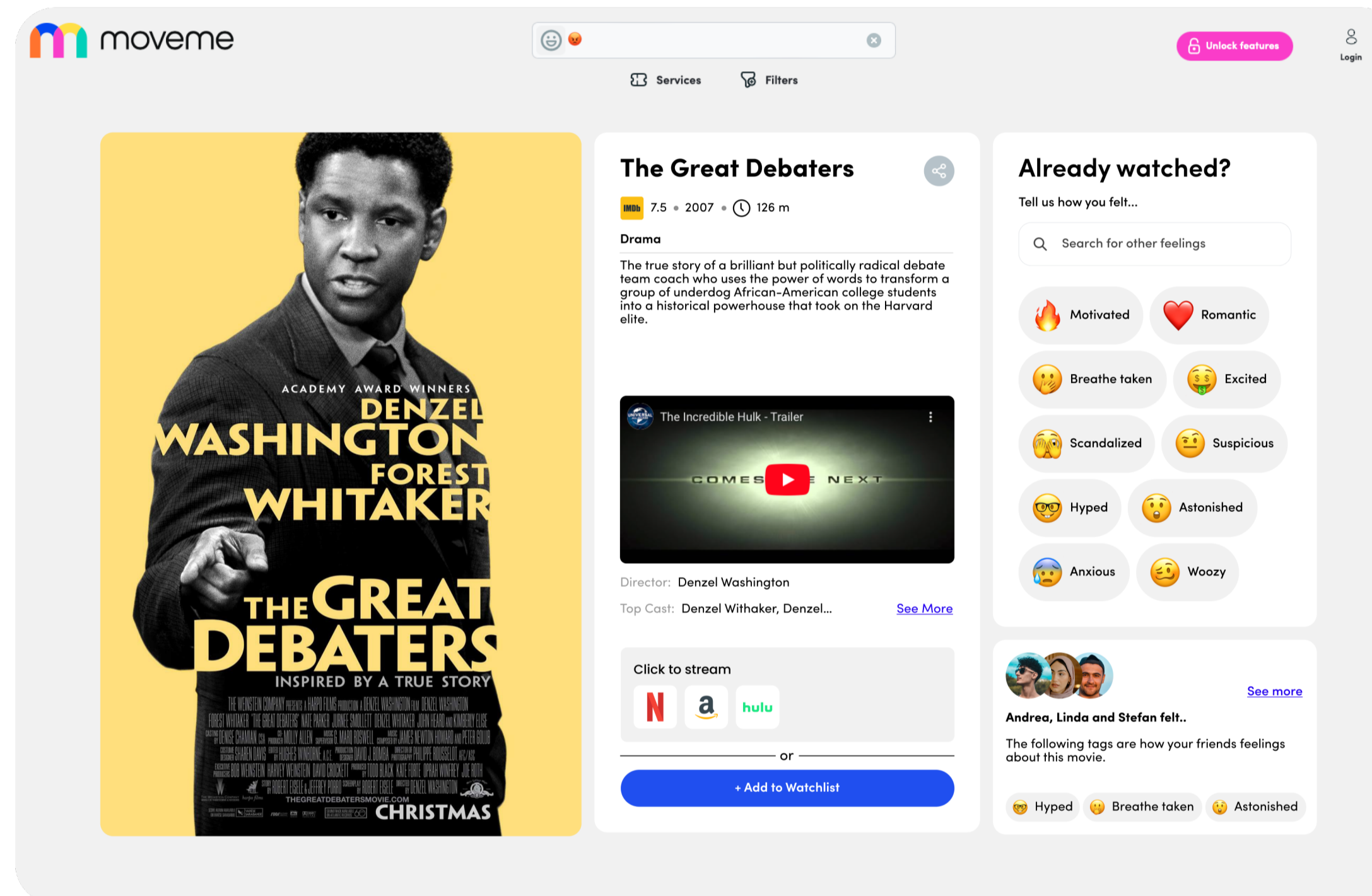
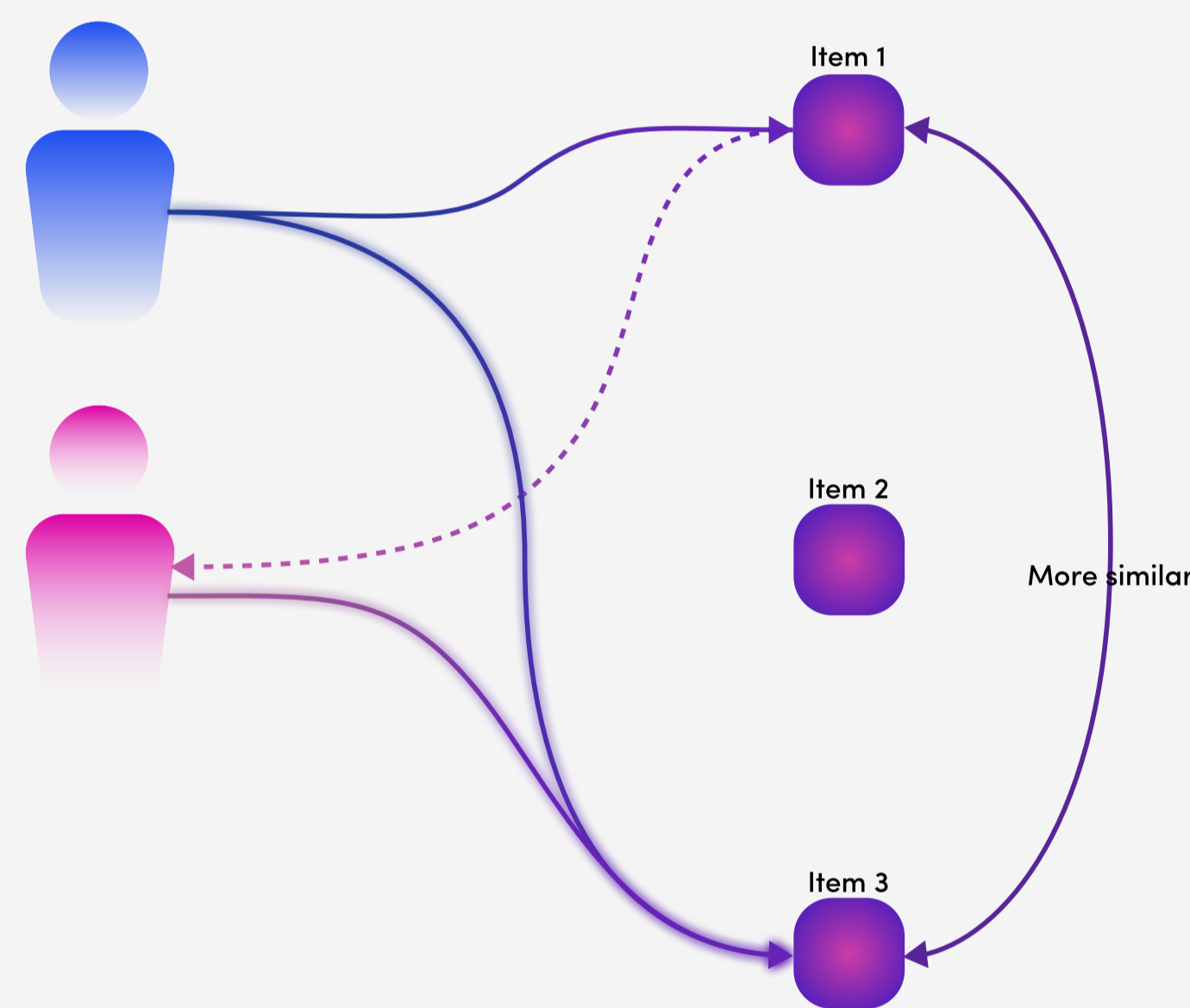
## Abstract

This study, in collaboration with MoveMe, explores AI model training with emotional feedback while keeping users engaged. Co-Design workshops and usability testing informed a Hi-Fi prototype, validated through EEG, eye-tracking, and interviews. The aim of this research is to understand what factors and attributes contribute to create engaging interfaces.

## Introduction & Background

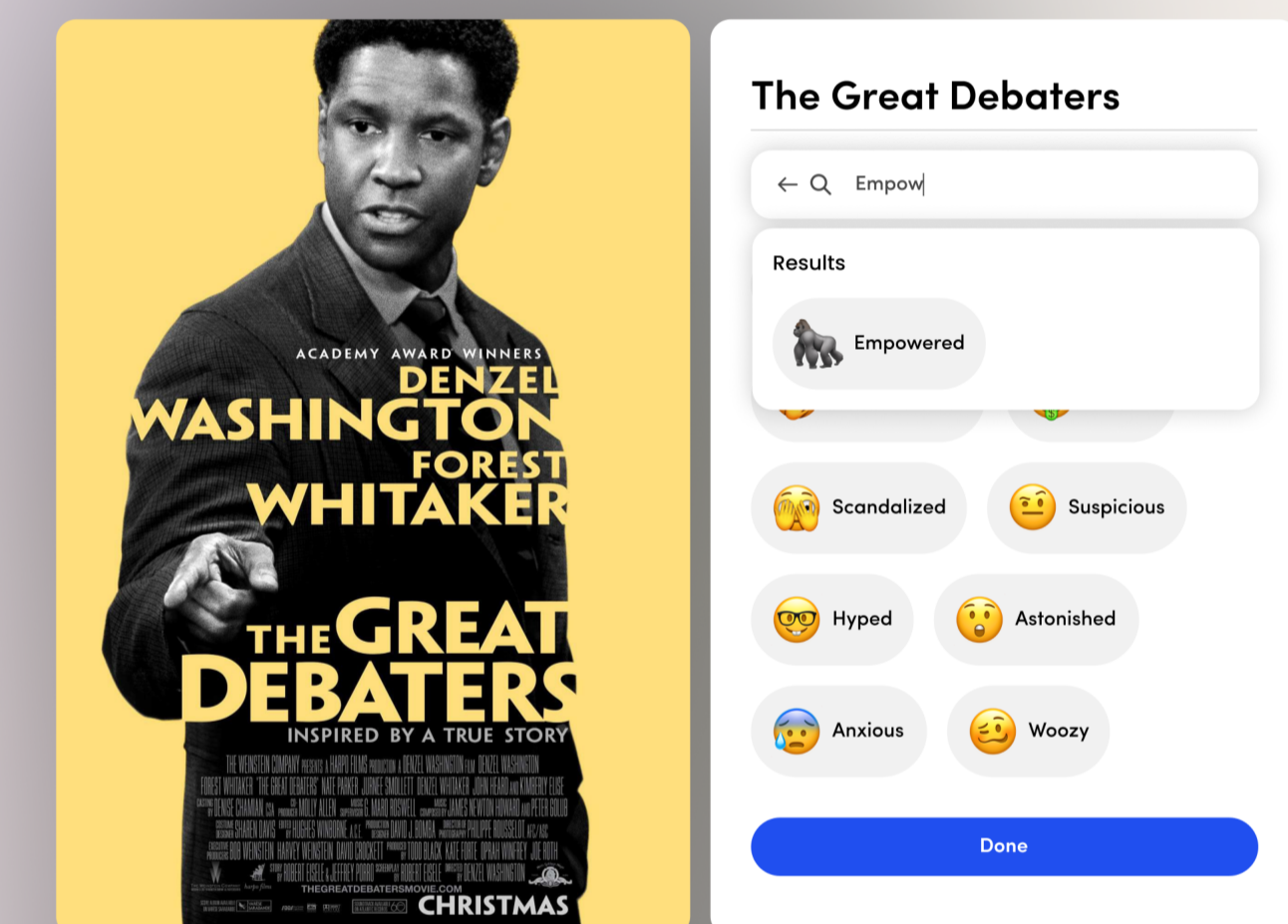
AI recommender systems have reshaped online interactions enhancing user experiences. To create better performing algorithms it will be necessary to integrate Item-Based collaborative filtering systems that get directly trained by users emotional feedback provided through engaging and motivating interfaces.

### Item Based Collaborative Filtering



### How did it make you feel?

Catch the feeling! Select between options



## Methodology

The methodology combines Co-Design workshops and usability testing on Hi-Fi prototypes, incorporating EEG, eye-tracking, facial recordings and interviews. These techniques offer insights into user engagement, cognitive responses, and emotions during platform interaction. The study employs a design-based research approach, leveraging various evaluation methods to understand user behaviours and preferences. This comprehensive methodology ensures iterative design enhancements and accurate evaluation of the platform's performance.

## Results

The results showcase the effectiveness of design choices in sustaining engagement. Users responded positively to familiar design patterns and elements like friends' feelings, enhancing interaction, constructing engagement via aesthetics and motivation. EEG, eye-tracking, and facial recording data provided robust evidence of users' cognitive involvement and emotional engagement. The data affirmed the success of the refined designs in creating an intuitive and emotionally resonant platform.

**Conclusion** The study proved the tested designs to be effective and engaging, using familiar patterns with the right engaging attribute enhances the overall experience for users. Although, some limitations occurred that can be avoided in the future, enlarging the domain of the study to the testing of long-term engagement, wider demographic and larger sample size will be helpful to further validate or improve the study.